



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE, TENNESSEE 37243-0435

ROBERT J. MARTINEAU, JR.
COMMISSIONER

BILL HASLAM
GOVERNOR

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Via First Class and Electronic Mail to James.Elmore@science.doe.gov

Jim Elmore

NEPA Compliance Officer
United States Department of Energy
Oak Ridge Office, SC-OR
200 Administration Road
Oak Ridge Tennessee 37830

Dear Jim Elmore:

The Tennessee Department of Environment and Conservation (TDEC) appreciates the opportunity to provide comments on the U.S. Department of Energy (DOE) *Draft Environmental Assessment (EA) for the Property Transfer to Develop a General Aviation Airport at the East Tennessee Technology Park (ETTP) Heritage Center*, located in Oak Ridge, Tennessee. The applicant, DOE, proposes to transfer title of approximately 170 acres of DOE property located at the ETTP Heritage Center to the Metropolitan Knoxville Airport Authority (MCAA), an independent, non-profit agency charged with meeting the aviation needs of East Tennessee, for the purpose of constructing and operating a general aviation airport.¹ The proposed Oak Ridge airport is intended to support the needs of the general aviation community in the Oak Ridge and Knoxville region and to enhance the development potential of the area by attracting new businesses/industries to the Heritage Center. The proposed Heritage Center Site airport design features a 5,000-ft runway that would allow the facility to accommodate a variety of general aviation aircraft including but not limited to corporate jets, private airplanes, and emergency medical services aircraft.

Actions considered in detail within the Draft EA include:

- No Action Alternative – DOE would not transfer approximately 170 acres of property located within the ETTP Heritage Center to the MCAA. The property would continue to be retained by DOE unless other requests for transfer of the parcels were made. Title transfer activities presently underway at the ETTP for all facilities and land areas included in previous NEPA decision documents would continue. Ongoing environmental restoration and waste management activities at the ETTP would also continue.

¹ Approximately 119 of the 170 acres of property that is part of the proposed action considered within the Draft EA were part of the area previously evaluated for transfer and development in the 2011 DOE EA titled *Transfer of Land and Facilities within the East Tennessee Technology Park and Surrounding Area, Oak Ridge, Tennessee*, DOE/EA-1640 (DOE 2011).

- Applicant Proposed Action – DOE would transfer approximately 170 acres for property located within the ETPP Heritage Center to the MKAA.² The proposed airport design features a 5,000-ft runway, but the airport design will fluctuate slightly as the final plans for the facility are developed.

TDEC's **Department of Energy Oversight Office (DOE-O)** has reviewed the Draft EA. DOE-O recognizes that the draft EA adequately describes the anticipated impacts of the construction and operation of a general aviation airport and that all impacts will be mitigated through the application of environmental regulations. Specific comments provided by DOE-O include:

- The northern section of the proposed airport footprint extends into forested uplands characterized by numerous mature white oak trees and dead standing snags, which serve as roosting habitat likely supporting the federally endangered Indiana bat.³ DOE-O concurs with DOE's recommendation that acoustic monitoring be conducted according to U.S. Fish and Wildlife (USFWS) guidance, that the construction zone should be surveyed for the presence of potential roost trees, and that tree removal should not occur between March 31 and October 15 to the extent practical. Specifically, with regard to acoustic monitoring, previous acoustic surveys conducted during the summer of 2013 do not provide site-specific bat acoustic information for the actual footprint of the proposed airport construction area and new surveys may need to be conducted for the specific footprint that will be directly impacted.
- Additionally, the gray bat has been documented in the vicinity of the construction footprint and habitat destruction would be expected to, at a minimum, displace this bat species.
- During an August 2015 TDEC walkover of the proposed airport construction site, the wetlands were observed to be fed by small springs or seeps capable of supporting aquatic life such as the Tennessee-listed Valley Flame Crayfish (*Cambarus deweesae*, Endangered species) that is a primary burrower known to occur in Roane County. These spring or seep-fed wetlands identified as S06, W09, W10, and W13 constitute part of the source water (i.e., headwaters) for Mitchell Branch. The loss of these wetlands may severely impact the benthic macroinvertebrate community in this upper reach of Mitchell Branch⁴ which is used by both TDEC and Oak Ridge National Laboratory (ORNL) biologists as a reference monitoring site (i.e., Aquatic Reference Area 1, ARA1⁵).
- DOE-O recommends that the statement "No federal- or state-listed species are known to occur within the construction footprint, although there is potential for occurrence of some species (Table 3.17)" on page 3-46 be verified with a thorough field biology survey.

² Once the initial property transfer of the 170 acres of DOE property is made to the MKAA, additional property, which was previously transferred by DOE to Community Reuse Organization of East Tennessee (CROET), will need to be obtained by the MKAA to accommodate the airport footprint.

³ TDEC staff walked over the hilly, forested topography north of the RSI solar panel array in August 2015 and counted >30 mature white oaks and dead snags with loose, exfoliating bark or holes, cracks or crevices that bats may use as maternity roosts.

⁴ Mitchell Branch (lower) is an impacted Tennessee stream and as such is entitled to an even greater level of protection. Over the years, the quality of lower Mitchell Branch has improved through remediation of legacy problems and the healthy fauna from upstream have been able to slowly repopulate the lower portions of the stream. Disturbing and filling in tributaries and associated wetlands of upper Mitchell Branch will likely degrade the quality of the upstream benthic populations and therefore remove a source of nursery organisms for repopulation of downstream portions of Mitchell Branch. As such, continued improvement of lower Mitchell Branch will likely be halted.

⁵ ARA1 is a small stream with reportedly high benthic invertebrate diversity but low fish diversity and it will likely be severely degraded during construction with a loss of diversity expected. A loss of biodiversity may negate the site from future use as a benthic reference.

- DOE-O recommends that DOE enhance Fig. 1.2. 2011 EA Area including Parcel ED-16 by identifying, in this figure, the other ED parcels that the proposed airport will affect (include parcels ED-13 and ED-8) and by identifying in the legend or removing the solid blue line and the dashed blue line surrounding the ETTP industrial area. As depicted, it is unclear what the solid blue line and the dashed blue line represent.

TDEC's **Division of Natural Areas (DNA)** has reviewed the Draft EA and provides the following comments regarding the proposed action:

- The specific area to be cleared is located mostly within and adjacent to the developed ETTP area with ongoing human presence and activity that diminishes the value of the site for many listed species. However, DNA advises that a number of the taxa below may remain on or near the property depending upon site conditions. DNA has reviewed the state's natural heritage database with regard to the project site and found that the following rare species have been observed previously within one mile of the project. Several of these species were also specifically noted by DOE-O:

Type	Scientific Name	Common Name	Global Rank	St. Rank	Fed. Prot.	St. Prot.	Habitat
Vertebrate Animal	<i>Aneides aeneus</i>	Green Salamander	G3G4	S3S4	--	Rare, Not State Listed	Damp crevices in shaded rock outcrops and ledges; beneath loose bark and cracks of trees and sometimes in/or under logs.
Vascular Plant	<i>Aureolaria patula</i>	Spreading False-foxglove	G3	S3	--	S	Oak Woods And Edges
Vertebrate Animal	<i>Chrosomus tennesseensis</i>	Tennessee Dace	G3	S3	--	D	First order spring-fed streams of woodlands in Ridge and Valley limestone region; Tennessee River watershed.
Vertebrate Animal	<i>Cryptobranchus alleganiensis</i>	Hellbender	G3G4	S3	No Status	D	Rocky, clear creeks and rivers with large shelter rocks.
Vascular Plant	<i>Elodea nuttallii</i>	Nuttall's Waterweed	G5	S2	--	S	Aquatic; Streams And Ponds
Vertebrate Animal	<i>Hemidactylium scutatum</i>	Four-toed Salamander	G5	S3	--	D	Woodland swamps, shallow depressions, & sphagnum mats on acidic soils; middle & east Tennessee.

Type	Scientific Name	Common Name	Global Rank	St. Rank	Fed. Prot.	St. Prot.	Habitat
Vertebrate Animal	<i>Hemitremia flammea</i>	Flame Chub	G3	S3	--	D	Springs and spring-fed streams with lush aquatic vegetation; Tennessee & middle Cumberland river watersheds.
Other (Ecological)	<i>Heron rookery</i>	Heron Rookery	GNR	SNR	--	Rare, Not State Listed	<Null>
Vascular Plant	<i>Juncus brachycephalus</i>	Small-headed Rush	G5	S2	--	S	Seeps And Wet Bluffs
Vertebrate Animal	<i>Limnothlypis swainsonii</i>	Swainson's Warbler	G4	S3	--	D	Mature, rich, damp, deciduous floodplain and swamp forests.
Vascular Plant	<i>Liparis loeselii</i>	Fen Orchis	G5	S1	--	T	Calcareous Seeps
Vertebrate Animal	<i>Myotis grisescens</i>	Gray Myotis	G3	S2	LE	E	Cave obligate year-round; frequents forested areas; migratory.
Vertebrate Animal	<i>Napaeozapus insignis</i>	Woodland Jumping Mouse	G5	S4	--	D	Deciduous and coniferous forests with herbaceous groundcover; middle and east Tennessee.
Vascular Plant	<i>Panax quinquefolius</i>	American Ginseng	G3G4	S3S4	--	S-CE	Rich Woods
Vascular Plant	<i>Platanthera flava</i> var. <i>herbiola</i>	Tuberclad Rein-orchid	G4?T4Q	S2	--	T	Swamps And Floodplains
Invertebrate Animal	<i>Pleurobema rubrum</i>	Pyramid Pigtoe	G2G3	S1S2	--	Rare, Not State Listed	Rivers with strong current and firm sand/gravel substrates; TN & Cumb river systems incl KY Reservoir; W Uplands & W Highland Rim.
Vertebrate Animal	<i>Sorex longirostris</i>	Southeastern Shrew	G5	S4	--	D	Various habitats including wet meadows, damp woods, and uplands; statewide.
Vascular Plant	<i>Spiranthes lucida</i>	Shining Ladies'-tresses	G5	S1S2	--	T	Alluvial Woods And Moist Slopes

Type	Scientific Name	Common Name	Global Rank	St. Rank	Fed. Prot.	St. Prot.	Habitat
Vertebrate Animal	<i>Synaptomys cooperi</i>	Southern Bog Lemming	G5	S4	--	D	Marshy meadows, wet balds, & rich upland forests.
Vertebrate Animal	<i>Zapus hudsonius</i>	Meadow Jumping Mouse	G5	S4	No Status	D	Open grassy fields; often abundant in thick vegetation near water bodies; statewide.

- Not shown on the list above, yet highly probable from area watersheds, is the Valley Flame Crayfish (*Cambarus deweesae*, State Endangered).⁶ Springs, wetlands, and wet meadows should be thoroughly inventoried to determine its presence in area floodplains. Should suitable habitat exist on or immediately downstream of the site, DNA recommends that project plans provide for the protection of these species.
- DNA also recommends that DOE coordinate this project with the Tennessee Wildlife Resources Agency (Rob Todd, rob.todd@tn.gov, 615-781-6577) to ensure that legal requirements for protection of state listed rare animals are addressed.
- DNA recommends that DOE contact the USFWS Field Office, Cookeville, Tennessee (931-525-4970) for comments regarding federally listed species.
- For stabilization of disturbed areas, the Tennessee Natural Heritage Program advocates the use of native trees, shrubs, and warm season grasses, where practicable. Care should be taken to prevent re-vegetation of disturbed areas with plants listed by the Tennessee Exotic Pest Plant Council as harmful exotic plants.

DNA advises that DOE keep in mind that not all of Tennessee has been surveyed and that a lack of records for any particular area should not be construed to mean that rare species necessarily are absent.

TDEC's **Division of Underground Storage Tanks (UST)** has reviewed the Draft EA. UST advises that if new underground storage tanks are added for this project and/or the current underground storage tanks or lines are disturbed during construction, DOE will need to notify UST and file appropriate paperwork.

TDEC's **Tennessee Geological Survey (TGS)** has reviewed the Draft EA and has no specific comments regarding the proposed action or its alternative.

TDEC's **Division of Solid Waste Management (SWM)** has reviewed the Draft EA. Based on the review of records for old, closed solid waste landfills, no sites were identified in SWM's records showing disposal on the proposed airport footprint. Given that the facility (DOE's Oak Ridge Reservation) has been in operation for over 75 years, SWM recommends that DOE also check any existing archival records for on-site dumping/disposal locations.⁷ SWM advises that any wastes which may be generated during the project, including any wastes unearthed during the project, would be subject to a radiological/hazardous waste determination, and must be managed appropriately.

⁶ This burrowing species is widespread in the Poplar Creek watershed, and is anticipated from abutting systems. It is reported as near as 1.8 air miles from the site.

⁷ Tennessee's SWM program dates back to 1972, so there could conceivably be disposal in the proposed location that predates the program and of which SWM is unaware.

TDEC's **Division of Water Resources (DWR)** has reviewed the Draft EA and provides the following comments:

- The portion of ETTP being transferred for the proposed project is addressed under NPDES Permit TN0002950, an Individual Stormwater permit for the DOE facility.⁸ Because this project will fundamentally change the nature of the watershed's stormwater runoff, DWR advises that the proposed transfer of land and future construction account for the potential stormwater impacts⁹ and that the airport construction be covered under an Individual Construction Stormwater Permit.¹⁰
- Discharges that would add loadings of a pollutant that is identified as causing or contributing to an impairment of a water body on the list of impaired waters are not authorized by this permit.¹¹
- Permanent stormwater control measures for the controlled release of stormwater will be required for the proposed action in accordance with a performance standard that is to be determined.¹² DWR encourages the use of both structural and non-structural measures for stormwater controls. Due to the extensive subsurface contamination on the western half of the proposed airport site, control measures involving infiltration are not allowed.

TDEC's **Division of Air Pollution Control (APC)** has reviewed the Draft EA and provides the following comments regarding the proposed action:

- This project is proposed to take place in Roane County, TN and APC comments that a small portion of Roane County (located around the TVA Kingston fossil plant), was named as part of the Knoxville PM2.5 nonattainment area (both the 24 hour and Annual stds. by EPA).¹³
- Regarding the increased air emissions projected after completion of the project, APC believes the Total and Percent of County Emissions numbers in table 3.3 in section 3.2.2.1 of the Draft EA are

⁸ The individual NPDES permit will require development of a Stormwater Management Plan addressing installation, implementation and maintenance of control measures and must comply with the Tennessee Antidegradation Statement available at <http://share.tn.gov/sos/rules/0400/0400-40/0400-40.htm>. For the watershed in which this project is located, the NPDES permit identifies stormwater constituents of concern including mercury, metals (arsenic, thallium, selenium, lead, copper and cadmium), Technetium-99, PCBs, and gross alpha/beta radiation.

⁹ See http://environment-online.tn.gov:8080/pls/enf_reports/f?p=9034:34001.

¹⁰ The project cannot be authorized for coverage under the General Permit (GP) because the receiving stream, Poplar Creek Embayment of Watts Bar Lake (Waterbody Unit ID TN06010207001 – 0100), is already impaired for mercury and PCBs, and the project has the potential to increase pollutant loadings into the receiving stream, at <http://www.tn.gov/assets/entities/environment/attachments/2014-proposed-final-303d-list.pdf>, pg. 85. Also, the project area exceeds the scope of projects authorized for coverage under a GP. The GP only authorizes a 50-acre disturbance at any time. *General NPDES Permit for Discharges of Stormwater Associated with Construction Activities, Permit No. TNR100000, effective May 24, 2011, expires May 23, 2016, para 3.5.3.1, pg 19* – available at http://www.tn.gov/assets/entities/environment/attachments/permit_water_tnr100000.pdf.

¹¹ See subpart 1.3 of permit TNR100000 cited above.

¹² Performance standards for permanent stormwater control measures will be established following the EPA Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act, TN NPDES Permit No. TNS000000, NPDES General Permit for Discharges from Small Municipal Separate Storm Sewer Systems, and City of Oak Ridge Municipal Separate Storm Sewer System TNS088366.

¹³ Currently the Knoxville area is classified as meeting both the 24 hour and annual PM2.5 stds with a Clean Data determination issued by EPA. However, the area is still classified as nonattainment for PM2.5. The Knoxville ozone nonattainment area was recently reclassified to attainment by EPA. This area included the counties of Knox and Blount and a small portion of Anderson.

low and recommends that the calculations be reviewed and recalculated.¹⁴ Also, APC recommends that these estimates be evaluated against the possible increase in vehicular traffic associated with the new airport users and associated staff and on site mobile equipment.

- An Air Conformity Applicability Modeling analysis was included with the Draft EA and, given that the project area is currently attaining the National Ambient Air Quality Standards (NAAQS), APC recognizes that it may not be necessary to consider the analysis at this time.
- APC advises that if any onsite building demolition activity is projected to occur, an asbestos survey needs to be performed before the demolition is to begin.¹⁵
- APC notes that there will be fugitive dust impacts associated with the onsite construction activity and that these will need to be mitigated through a dust suppression protocol as needed.
- If any ground clearing is anticipated as part of the runway construction activities, open burning may be used to dispose of the residual trees and stumps removed onsite. APC recommends that alternate disposal methods be considered if practical or economically feasible (grinding, chipping or composting).

Given that the DOE site was previously used for uranium enrichment and separation processing and has known historic areas of legacy radioactive wastes, residual mercury wastes, and potentially chemical wastes, TDEC generally recommends that any proposed construction project be managed in a manner so that all of the proposed areas where any soils are to be disturbed or buildings demolished, are surveyed in advance for radiological, mercury, or chemical wastes and remediated prior to beginning any onsite activity that could disturb legacy wastes.

TDEC appreciates the opportunity to comment on the Draft EA. Please note that these comments are not indicative of approval or disapproval of the proposed action or its alternatives, nor should they be interpreted as an indication of all necessary permits that may be required from TDEC should action be taken. Please contact me should you have any questions regarding these comments.

Sincerely,



Michelle Walker Owenby
Assistant Commissioner of Policy and Planning
Phone: (615) 532-9668

cc: John Owsley, TDEC, DOR/DOE-Oak Ridge
Stephanie Williams, TDEC, DNA
Michelle Pruett, TDEC, UST
Ron Zurawski, TDEC, TGS
Lisa Hughey, TDEC, SWM
Jim Sutherland, TDEC, DWR
Lacey Hardin, TDEC, APC

¹⁴ The major sources of these emissions are from the aircrafts that will use the facility. Aircrafts are classified as mobile sources and not typically subject to APC permitting.

¹⁵ The plan identifies two potential buildings that could be affected K1330 and K1580. The notification procedures are included in the asbestos section of the draft.